

Technical drawing of a symmetrical cold-chamber die casting mold. The drawing shows a cross-section of the mold with dimensions in millimeters. The total width is 83 mm. The thickness of the sheet is 2 mm, with a tolerance of +6/-0 mm. The mold is symmetrical about a central axis. The top half has a radius of 24R and a thickness of 27 mm. The bottom half has a radius of 24R and a thickness of 20 mm. The total height is 512 ± 5 mm. The mold is labeled 'Splice bolt slots' and 'Neutral axis'.

Technical drawing of a post and block connection. The drawing shows a side view of a vertical post passing through a horizontal W beam rail member. The post is secured with a 100 mm plate washer and an M16 recess nut on the right side. The left side shows the post passing through the rail member. Dimensions are given: 200 mm for the distance from the centerline to the center of the post, and 180 mm for the height of the rail member. The post is labeled "Post and block". The rail member is labeled "W beam rail member". The washer is labeled "100 mm plate washer all posts except those on terminal sections." and the nut is labeled "M16 recess nut". The bolt is labeled "M16 x 460 mm Button head bolt".

Technical drawings of beam rail members showing post bolt slot and splice bolt slot details.

POST BOLT SLOT
 Dimensions: 65 (total length), 10 (radius), 10 (radius).
 R=10 Radius

SPLICE BOLT SLOT
 Dimensions: 30 (total length), 12 (radius), 12 (radius).
 R=12 Radius

W BEAM RAIL MEMBERS

Technical drawing of a bolt and nut assembly. The bolt is shown in side and end views with dimensions: 8.0 mm head diameter, 5.5 mm head thickness, and length L. The nut is shown in side and end views with dimensions: 35 mm outer diameter, 24 mm inner diameter, 32 mm hex width across flats, and 17.5 mm height. A callout indicates a 25 mm diameter x 1.5 mm deep recess on the nut's top surface.

Technical drawing of a concrete curb cross-section and side view. The cross-section shows a curb with a top width of 200 mm, a base width of 150 mm, and a height of 180 mm. The side view shows a curb with a length of 1.8 m, a base width of 150 mm, and a height of 180 mm. The curb has a post length stamp of 35 mm high and 6 mm deep. The curb has 20 mm dia. holes for raising guardrail to accommodate future overlays. The curb has a length of 1.8 m. The curb has a base width of 150 mm. The curb has a height of 180 mm. The curb has a top width of 200 mm. The curb has a post length stamp of 35 mm high and 6 mm deep. The curb has 20 mm dia. holes for raising guardrail to accommodate future overlays.

Technical drawing of a concrete curb and gutter cross-section. The drawing shows a concrete curb with a height of 550 mm. Reinforcement details include:

- M16 x 35 mm button head rail splice bolts and nuts (8 per splice and 4 per terminal section).** These are used for the rail splice.
- POST SPACING 1.905 METERS.** The distance between the posts.
- TRAFFIC** direction is indicated by an arrow pointing left.
- Lap in direction of traffic.** The lap joint is oriented towards the traffic.
- M16 x 460 mm button head post bolt.** The bolt securing the post to the curb.
- Edge of pavement or ground line at face of rail as applicable.** The base line for the curb.

Wrap post with 13 mm styrofoam where it contacts the concrete

TYPICAL GUARDRAIL CROSS SECTION

The diagram illustrates a cross-section of a highway shoulder and approach section. Key features include:

- Toenall with one 16d galvanized nail on each side of block:** Indicated at the top of the shoulder structure.
- 1 m (typ.)**: The width of the shoulder structure.
- 550**: The height of the shoulder structure.
- 0.73 m**: The height of the aggregate base.
- 1.1 m minimum**: The minimum height of the aggregate base.
- 1:10 or flatter**: The slope of the aggregate base.
- Edge of pavement or ground line at face of rail**: The boundary of the pavement.
- Aggregate base or as shown on typical section sheet**: The material beneath the pavement.
- Hinge line of foreslope**: The line where the shoulder meets the main slope.
- Variable slope but not steeper than fill slope**: The slope of the approach section.
- Subgrade shoulder. Widening required for approach and departure terminal sections**: The shoulder area that requires widening.
- Variable fill slope**: The slope of the fill material.

See Special Contract Requirements when 2.1 m or longer posts are specified.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY OFFICE		
METRIC STANDARD		
G4 W BEAM GUARDRAIL WOOD POSTS		
STANDARD APPROVED FOR USE 02/96		STANDARD
REVISED:	8/97	M617-10

NO SCALE